

Claims

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1. A method of determining a soft material structure, characterized in that the soft material structure is determined by taking transmission electron microscopy images of a soft material under conditions that a plurality of crystallographically significant directions are selected in succession as incident axes of electrons, Fourier transforming each of the images photographed, evaluating therefrom amplitudes and phases of three-dimensional crystal structure factors, and further performing inverse Fourier transforms by use of the values evaluated.

2. A method of determining a soft material structure as described in claim 1, wherein the transmission electron microscopy images are photographed from at least three different directions.

3. A method of determining a soft material structure as described in claim 1, wherein the soft material is a light element, a porous material, a combination of light elements, a combination of porous materials or a combination of a light element and a porous material.

4. A method of determining a soft material structure as described in claim 1, wherein the soft material is a substance selected from the group consisting of mesoporous materials, surfactants, copolymerized macromolecules, biological membranes and liquid crystals.

5. A method of determining a soft material structure as described in claim 3, wherein the soft material is a substance selected from the group consisting of mesoporous materials,

surfactants, copolymerized macromolecules, biological membranes and liquid crystals.

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- 5 6. A method of determining a soft material structure as described in claim 1, wherein the images used for Fourier transform are partial areas of images corresponding to no greater than 50 nm-thick parts of a sample of the soft material.

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